

What is claimed is:

1           1. A nickel electrode for an alkaline storage battery,  
2 comprising:

3           a conductive porous member; and

4           an active material with which the conductive porous  
5 member is filled, the active material including (a) a main  
6 active material layer substantially made of nickel

7 hydroxide, the main active material layer containing cobalt  
8 in a state of a solid solution, and (b) a compound layer  
9 that contains at least one element selected from the group  
10 consisting of calcium, aluminum, strontium, scandium,  
11 yttrium, and lanthanoide series, the compound layer being  
12 formed on a surface of the main active material layer,

13           wherein a metal molar ratio of cobalt contained in  
14 the main active material layer to nickel contained in the  
15 main active material layer is in a range of 0.5% to 3.0%  
16 inclusive, and

17           a metal molar ratio of the at least one element  
18 contained in the compound layer to nickel contained in the  
19 active material is in a range of 0.3% to 5.0% inclusive.

1           2. The nickel electrode according to Claim 1,

2           wherein the metal molar ratio of the at least one  
3 element selected from the group consisting of calcium,  
4 aluminum, strontium, scandium, yttrium, and lanthanoide  
5 series is at least 20% in the compound layer formed on the

6 surface of the main active material layer.

1 3. A method of manufacturing a nickel electrode for  
2 an alkaline storage battery, comprising:

3 a step for filling a conductive porous substrate with  
4 a main active material substantially made of nickel  
5 hydroxide, the main active material containing cobalt at  
6 a metal molar ratio of 0.5% to 3.0% in a state of a solid  
7 solution; and

8 a step for forming a compound layer containing at least  
9 one element selected from the group consisting of calcium,  
10 aluminum, strontium, scandium, yttrium, and lanthanoide  
11 series, on a surface of the main active material.

1 4. A method of manufacturing a nickel electrode for  
2 an alkaline storage battery, comprising:

3 a step for forming an active material by forming a  
4 compound layer on a surface of a main active material, the  
5 main active material being substantially made of nickel  
6 hydroxide and containing cobalt at a metal molar ratio of  
7 0.5% to 3.0% in a state of a solid solution, the compound  
8 layer containing at least one element selected from the  
9 group consisting of calcium, aluminum, strontium, scandium,  
10 yttrium, and lanthanoide series; and

11 a step for filling a conductive porous substrate with  
12 the active material.